

METHOD FOR PREVENTING TO FORM A SPACER UNDERCUT IN SEG PRE-CLEAN PROCESS

A method for preventing to form a spacer undercut in SEG pre-clean process is provided. This present invention utilizes HFEG solution to etch the first spacer and the second spacer simultaneously, which can prevent from producing a spacer undercut, meanwhile; a native oxide layer upon a surface of a semiconductor substrate is removed. Hence, the clean surface on the semiconductor substrate is obtained. This method includes the steps as follows: Firstly, the native oxide layer upon the surface of the semiconductor substrate is removed by DHF (HF in deionized water) solution. Then, etching the first spacer and the second spacer at the same time by HFEG (HF diluted by ethylene glycol) solution. Also, the native oxide upon the semiconductor substrate is removed. Therefore, it obtains the clean semiconductor surface without a serious spacer undercut.